896 Can We Count on Serum Hyperbilirubinemia to Predict Acute Complicated Appendicitis?

S. Jaskani[1,2], Z. Al-Hamid[3,2], D. Chattopadhyay[2]
[1]Darent Valley Hospital, Dartford, United Kingdom, [2]Bedford Hospital, Bedford, United Kingdom, [3]Blackpool victoria hospital, Blackpool, United Kingdom

Aim: Acute appendicitis (AA) is usually a clinical diagnosis and surgical intervention is typically a preferred choice to avoid potentially lethal complications like perforation and purulent peritonitis. Intra-abdominal inflammation can lead to hepatic cholestasis due to cytokine release, which can reflect as rise in bilirubin alone or in combination with other liver enzymes. The aim of this study was to evaluate hyperbilirubinemia as a predictor of complicated acute appendicitis (CA).

Method: A retrospective analysis of all the patients who underwent surgery for AA in a district general hospital in the UK from Jan 2018 to April 2019. All the patients underwent admission blood tests including White cell count (WCC), C- reactive proteins (CRP), and liver function tests (LFTs). For data collection hospital medical record was used. Complicated appendicitis (CA) was defined as Gangrenous, or perforated appendix wall, abscess formation, or generalized peritonitis.

Results: In total 236 patients underwent appendectomy. On histology 25 patients (10.6%) had normal appendix (NA). Furthermore, 161 patients (68.2%) had uncomplicated appendicitis (UA) and 50 patients (21.2%) had complicated appendicitis (CA). Serum Bilirubin (SB) was found to be statistically significantly raised in patients with CA (p value=0.0001) when compared with NA group. Overall sensitivity of SB, CRP and WCC for AA was(15.17%, 79.90%, and 57.82% respectively) and specificity was(100%, 36.36% and 68% respectively).

Conclusions: SB had low sensitivity and high specificity as compared to CRP and WCC for AA. Raised serum bilirubin levels can be considered as one of the supportive markers of complicated appendicitis.